

Case-Based Reasoning: Experiences, Lessons, & Future Directions. Edited by David B. Leake. AAAI Press/MIT Press, Menlo Park, CA/Cambridge, MA. (1996). 420 pages. \$40.00.

Contents:

Contributors. Preface. 1. CBR in context: The present and future (David B. Leake). 2. A tutorial introduction to case-based reasoning (Janet L. Kolodner and David B. Leake). 3. Indexing evaluations of buildings to aid conceptual design (Anna L. Griffith and Eric A. Domeshek). 4. Towards more creative case-based design systems (Linda M. Wills and Janet L. Kolodner). 5. Retrieving stories for case-based teaching (Robin Burke and Alex Kass). 6. Using heuristic search to retrieve cases that support arguments (Edwina L. Rissland, David B. Shalak and M. Timur Friedman). 7. A case-based approach to knowledge navigation (Kristian J. Hammond, Robin Burke and Kathryn Schmitt). 8. Flexible strategy learning using analogical replay of problem solving episodes (Manuela M. Veloso). 9. Design à la déjà vu: Reducing the adaptation overhead (Barry Smythe and Mark T. Keane). 10. Multi-plan retrieval and adaptation in an experience-based agent (Ashwin Ram and Anthony G. Francis, Jr.). 11. Learning to improve case adaptation by introspective reasoning and CBR (David B. Leake, Andrew Kinley and David Wilson). 12. Systematic evaluation of design decisions in case-based reasoning systems (Juan Carlos Santamaría and Ashwin Ram). 13. The experience sharing architecture: A case study in corporate-wide case-based software quality control (Hiroaki Kitano and Hideo Shimazu). 14. Case-based reasoning: Expectations and results (William Mark, Evangelos Simoudis and David Hinkle). 15. Goal-reasoning scenarios: Case-based reasoning meets learning by doing (Roger C. Schank). 16. Making the implicit explicit: Clarifying the principles of case-based reasoning (Janet L. Kolodner). 17. What next? The future of case-based reasoning in postmodern AI (Christopher K. Riesbeck). Bibliography. Index.

The Mind-Brain Continuum: Sensory Processes. Edited by Rodolfo Llinás and Patricia S. Churchland. MIT Press, Cambridge, MA. (1996). 315 pages. \$50.00.

Contents:

Foreword (Antonio Fernandez de Molina and Pedro Lain Entralgo). Introduction. 1. The brain as a closed system modulated by the senses (R. Llinás and D. Paré). 2. Making images and creating subjectivity (A.R. Damasio and H. Damasio). 3. Illusions of body image: What they reveal about human nature (V.S. Ramachandran, L. Levi, L. Stone, D. Rogers-Ramachandran, R. McKinney, M. Stalcup, G. Arcilla, R. Zweifler, A. Schatz and A. Flippin). 4. Neural representations, experience, and change (M.M. Merzenich and R.C. deCharms). 5. Neurotransmitter receptor regulation and its role in synaptic plasticity and stabilization (P.W. Hickmott and M. Constantine-Paton). 6. Neuronal synchronization: A solution to the binding problem? (W. Singer). 7. The binding problem of neural networks (C. von der Malsburg). 8. Recognition and representation of visual objects in primates: Psychophysics and physiology (N.K. Logothetis and D.L. Sheinberg). 9. Olfactory perception and memory (H. Eichenbaum). 10. Perceptual interpretation and the neurobiology of perception (A.S. Bergman). 11. Formation of perceptual objects from the timing of neural responses: Target-range images in bat sonar (J.A. Simmons). 12. Audition: Cognitive psychology of music (S. McAdams). 13. Toward a neurobiology of the mind (P.S. Churchland). Contributors. Index.

Disciplining Music: Musicology and Its Canons. Edited by Katherine Bergeron and Philip V. Bohlman. University of Chicago Press, Chicago. (1992). 220 pages. \$15.95, £12.75.

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Preface. 1. Prologue: Disciplining music (Katherine Bergeron). 2. The canons in the musicological Toolbox (Don Michael Randel). 3. Sophie Drinker's history (Ruth A. Solie). 4. Rethinking musical culture: Canonic reformulations in a post-tonal age (Robert P. Morgan). 5. Cultural dialogics and jazz: A white historian signifies (Gary Tomlinson). 6. History and works that have no history: Reviving Rossini's Neapolitan operas (Philip Gossett). 7. Ethnomusicology's challenge to the canon; the canon's challenge to ethnomusicology (Philip V. Bohlman). 8. Mozart and the ethnomusicological study of western culture: An essay in four movements (Bruno Nettl). 9. Hierarchical unity, plural unities: Toward a reconciliation (Richard Cohn and Douglas Dempster). 10. A lifetime of chants (Katherine Bergeron). 11. Epilogue: Musics and canons (Philip V. Bohlman). Contributors. Index.

Mathematica® in Theoretical Physics: Selected Examples from Classical Mechanics to Fractals. By Gerd Baumann. Springer-Verlag, Heidelberg, Germany. (1996). 348 pages. DM 88.00, sFr 77.50 (diskette included).

Contents:

1. Introduction. 2. Classical mechanics. 3. Electrodynamics. 4. Quantum mechanics. 5. Nonlinear dynamics. 6. General relativity. 7. Fractals. Appendix. References. Index.

Graphs & Digraphs, (Third edition). By Gary Chartrand and Linda Lesniak. Chapman & Hall, New York. (1996). 422 pages. \$59.95.

Contents:

Preface to the third edition. 1. Introduction to graphs. 2. Structure and symmetry of graphs. 3. Trees and connectivity. 4. Eulerian and Hamiltonian graphs and digraphs. 5. Directed graphs. 6. Planar graphs. 7. Graph embeddings. 8. Graph colorings. 9. Matchings, factors and decompositions. 10. Domination in graphs. 11. Extremal graph theory. 12. Ramsey theory. 13. The probabilistic method in graph theory. Glossary of symbols. Graph theory books 1936–1996. References. Index.